

What is claimed is:

1. A television camera which adjusts the level of the R, G and B signals obtained through a three-color separation optical system to keep the white balance comprising:

5 control means for setting the level adjusting values of the R, G and B signals according to the diaphragm signal indicating the diaphragm condition of a taking lens; and
white balance correction means for adjusting the levels of the R, G and B signals according to said level adjusting value.

10 2. A television camera as set forth in claim 1, whrein the adjusting value in said control means is set at a value by which the level of an arbitrary one signal is caused to be even relatively with that of both of the other signals.

15 3. The television camera as set forth in claim 2, wherein the adjusting value in said control means is set at a value by which the level of an arbitrary one signal is caused to be increased or decreased relatively to that of both of the other signals
20 in case that the diaphragm of the taking lens has been opened beyond a predetermined value.

25 4. The television camera as set forth in claim 2, wherein said arbitrary one signal is the signal G.

5. The television camera as set forth in claim 2, wherein said arbitrary one signal is the signal R.

30 6. The television camera as set forth in claim 2, wherein said arbitrary one signal is the signal B.

7. The television camera as set forth in claim 1, wherein setting of the level adjusting value in said control means and

level adjusting according to the level adjusting value in said white balance correcting means are performed in response to a change in the diaphragm condition of said taking lens.

5 8. A television camera which adjusts the level of the R, G and B signals obtained through a three-color separation optical system to keep the white balance comprising:

10 an iris section for performing the opening/closing operation of the diaphragm of a taking lens, and outputting a diaphragm signal indicating the opening condition of the diaphragm;

15 a microcomputer for inputting the diaphragm signal from said iris section, and setting level adjusting values of the R, G and B signals; and

white balance correcting means for adjusting the levels of said R, G and B signals according to said level adjusting values.

9. The television camera as set forth in claim 8, wherein said 20 white balance correcting means have three analog multipliers for multiplying individually the R, G and B signals before being white balance corrected, and multiplying coefficients corresponding thereto, and outputting individually the 25 individually multiplied values as the R, G and B signals after being white balance corrected, and

wherein said microcomputer stores previously the multiplying coefficients supplied to said white balance correcting means as said level adjusting value by bringing them into correspondence with the whole of the diaphragm regions of 30 the taking lens, and in a condition in which the diaphragm of the lens is not opened near to the opening end, outputs said multiplying coefficients thus stored to said analog multipliers, while in a condition in which the diaphragm of the lens is opened

near to the opening end, sets individually said multiplying coefficients in such a manner that the level of an arbitrary one signal of the R, G and B signals is made relatively even with that of other both the signals, and outputs them to said analog multipliers.

10. A television camera white balance correcting method for adjusting the levels of the R, G and B signals obtained through a three-color separation optical system to keep the white balance comprising the steps of:

10 setting the level adjusting values of the R, G and B signals according to the diaphragm condition of a taking lens, and

15 adjusting the levels of the R, G and B signals according to said level adjusting values.

11. The television camera white balance correcting method as set forth in claim 10, wherein the level of an arbitrary one signal of the R, G and B signals is made relatively even with that of other both the signals, thereby adjusting the levels of the R, G and B signals.

12. The television camera white balance correcting method as set forth in claim 11, wherein in case that the diaphragm of the taking lens is opened beyond a predetermined value, the level of an arbitrary one signal of the R, G and B signals is caused to be relatively increased or decreased to that of other both the signals, thereby adjusting the levels of the R, G and B signals.

30 13. The television camera white balance correcting method as set forth in claim 11, wherein the G signal as said arbitrary one signal is selected.

14. The television camera white balance correcting method as set forth in claim 11, wherein in that the R signal as said arbitrary one signal is selected.

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15. The television camera white balance correcting method as set forth in claim 11, wherein the B signal as said arbitrary one signal is selected.

16. The television camera white balance correcting method as
10 set forth in claim 10, wherein setting of the level adjusting
values of said R, G and B signals and white balance adjusting
according to the adjusting values are performed in response to
a change in the diaphragm condition of the lens.